App. No.: 09/380,534
Filed: September 1, 1999

LISTING OF THE CLAIMS

1. - 71. (Cancelled)

72. (Currently amended) A method of obtaining a sustained CTL response in a mammal, which method comprises:

delivering an antigen directly to a lymph node or a lymph vessel of the mammal at a level sufficient to induce an antigen-specific CTL response in the mammal; and

maintaining the antigen in the mammal's lymphatic system over time sufficient to sustain the antigen-specific CTL response.

73. (Previously presented) The method of Claim 72, wherein the antigen is provided in the form of a polypeptide.

74. (Previously presented) The method of Claim 72, wherein the antigen is provided as a component of a microorganism.

75. (Previously presented) The method of Claim 72, wherein the antigen is provided in the form of a nucleic acid encoding the antigen.

76. (Previously presented) The method of Claim 75, wherein the nucleic acid encoding the antigen comprises a plasmid, a vector, or a recombinant viral vector.

77. (Previously presented) The method of Claim 72, wherein the antigen is maintained by sustained, delivery of the antigen.

78. (Previously presented) The method of Claim 72, wherein the antigen is a diseased matched antigen.

79. (Currently amended) A method of obtaining a sustained effector CTL response in a mammal, which method comprises:

selecting an antigen suitable for a sustained CTL response in the mammal;

delivering the antigen to a lymphatic system of the mammal on a sustained basis over a period time at a level sufficient to induce and sustain a sustained antigen-specific effector CTL response in the mammal;

~~causing sustained exposure of the antigen to the mammal's lymphatic system;~~

~~obtaining a sustained effector CTL response in the mammal; and~~

~~detecting the sustained effector CTL response in the mammal~~.

80. (Currently amended) The method of Claim 79, further comprising detecting the sustained antigen-specific effector CTL response in the mammal, wherein the ~~detection step~~

detecting comprises an assay selected from the group consisting of a cytokine assay, a chromium release assay, an antiviral protection assay, virus titer, an immunofluorescence assay, a tumor growth inhibition assay, tumor size reduction, a CTL assay, inhibition of tumor metastasis, increase in life expectancy, infectious disease recovery, inflammatory reaction assay, and observation of the health of the mammal.

81. (Previously presented) The method of Claim 79, wherein the delivery step further comprises delivering a cytokine, adjuvant, or potentiator.

82. (Currently amended) A method of obtaining a sustained CTL response in a mammal, which method comprises:

selecting an antigen that is capable of inducing CTL in a mammal;

delivering the antigen to the mammal at a level sufficient to induce an antigen-specific CTL response in the mammal, wherein the antigen is delivered to an area of high lymphatic drainage in the mammal; and

maintaining the antigen in the mammal's lymphatic system sufficient to sustain the antigen-specific CTL response for a period of time that is substantially co-extensive with the desired duration of the CTL response.

83. (Currently amended) A method of obtaining a sustained effector CTL response in a mammal, which method comprises:

delivering an antigen to a lymphatic system of the mammal on a sustained basis over a period time at a level sufficient to induce a sustained antigen-specific effector CTL response in the mammal; and

~~causing sustained exposure of the antigen to the mammal's lymphatic system;~~

~~obtaining a sustained effector CTL response in the mammal; and~~

detecting the sustained effector CTL response in the mammal.

84. (Previously presented) The method of Claim 83, wherein the detection step comprises an assay selected from the group consisting of a cytokine assay, a chromium release assay, an antiviral protection assay, viral titer, an immunofluorescence assay, a tumor growth inhibition assay, tumor size reduction, a CTL assay, inhibition of tumor metastasis, increase in life expectancy, infectious disease recovery, inflammatory reaction assay, and observation of the health of the mammal.

85. (Previously presented) The method of Claim 83, wherein the antigen is a patient-matched antigen.

86. (Currently amended) The method of Claim 83, wherein ~~causing sustained exposure of the antigen to the mammal's lymphatic system~~ delivering the antigen to the lymphatic system of the mammal on a sustained basis over a period of time comprises repeated exposure of the antigen to the mammal's lymphatic system.

87. (Currently amended) A method of obtaining a sustained effector CTL response in a mammal, which method comprises:

delivering an antigen in an acellular composition directly to an area of high lymphatic drainage in the mammal on a sustained basis over a period time at a level sufficient to induce ~~an~~ a sustained effector antigen-specific CTL response in the mammal; ~~and~~

~~maintaining the antigen in the mammal's lymphatic system over time sufficient to sustain the effector CTL response.~~

88. (Previously presented) The method of Claim 87, wherein the antigen in the acellular composition is provided in the form of a nucleic acid encoding a polypeptide antigen.

89. (Previously presented) The method of Claim 87, wherein the antigen is delivered as a bolus in a single dose, and wherein the single dose is sufficient to maintain the antigen in the mammal's lymphatic system over time sufficient to sustain the CTL response.

90. (Previously presented) The method of Claim 87, wherein the sustained CTL response is detectable by a CTL assay.

91. (Previously presented) The method of Claim 87, further comprising selecting an antigen in an acellular composition for delivery that is suitable for a sustained CTL response.

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SUMMARY OF INTERVIEW ON NOVEMBER 16, 2004

Exhibits and/or Demonstrations

No exhibits or demonstrations were made during the interview.

Identification of Claims Discussed

Claims 72-91 were discussed during the interview.

Identification of Prior Art Discussed

Grohmann *et al.* and Sadao *et al.* were discussed during the interview.

Amendments

The United States Patent and Trademark Office (USPTO) and Applicants' representatives agreed that Applicants will amend the independent claims as suggested during the interview to overcome the art rejections. Specifically, it was agreed that Applicants would amend Claim 79 as suggested in order to overcome Grohmann *et al.* and Sadao *et al.* The USPTO agreed to allow the claims rejected over Grohmann *et al.* if those claims were amended to recite "delivering the antigen to a lymphatic system of the animal on a sustained basis for a desired period of time at a level ... to induce an antigen-specific sustained effector CTL response." The USPTO agreed to allow the claims rejected over Sadao *et al.* if those claims were amended to recite "antigen-specific" CTL response.

Principal Arguments and Other Matters

The USPTO stated that the rejections under § 112, first paragraph were overcome by the response filed on September 30, 2004.

Results of Interview

The PTO agreed to withdraw all of the rejections and allow all of the claims, if Applicants amended the claims as shown above.